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☐	L10	(Salin-Nordstrom-Tuija-H.IN.)	0
☐	L9	(L7 AND L8)	25
☐	L8	transdifferentiation	171
☐	L7	astrocyte	4463
☐	L6	L5 AND transdifferentiation	17
☐	L5	L4 AND astrocyte	1413
☐	L4	435/325,363,366,368.CCLS.	16676
☐	L3	Salin-Nordstrom-T.IN.	0
☐	L2	Salin-Nordstrom.IN.	1
☐	L1	(Salin-Nordstrom-Tuija.IN.)	0

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=> s astrocyte
  55 FILES SEARCHED...
L1      168587 ASTROCYTE

=> S transdifferentiation
  59 FILES SEARCHED...
L2       25041 TRANSDIFFERENTIATION

=> S L1 AND L2
  60 FILES SEARCHED...
L3         110 L1 AND L2

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DRUGMONOG2, IMSRESEARCH, FEDRIP, FOREGE, GENBANK, IMSPRODUCT, KOSMET,
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L4           55 DUP REM L3 (55 DUPLICATES REMOVED)

=> D L4 1-55

L4   ANSWER 1 OF 55  USPATFULL on STN
AN     2004:150954  USPATFULL
TI     Methods for treating disorders of neuronal deficiency with bone
       marrow-derived cells
IN     Blau, Helen M., Menlo Park, CA, UNITED STATES
       Brazelton, Timothy, Cupertino, CA, UNITED STATES
       Weimann, James M., Palo Alto, CA, UNITED STATES
PA     The Board of Trustees of the Leland, Palo Alto, CA (U.S. corporation)
PI     US 2004115175      A1   20040617
AI     US 2003-688747     A1   20031016 (10)
LI     Continuation-in-part of Ser. No. US 2001-993045, filed on 13 Nov 2001,
       PENDING
PRAI   US 2000-247128P     20001110 (60)
DT     Utility
FS     APPLICATION
N.CNT 2455
NCL    INCLM: 424/093.700
CL     NCLM:  424/093.700
C      [7]
       ICM: A61K045-00

4   ANSWER 2 OF 55  USPATFULL on STN
N      2004:140277  USPATFULL
I      Multipotent adult stem cells, sources thereof, methods of obtaining
       same, methods of differentiation thereof, methods of use thereof and
       cells derived thereof
N      Furcht, Leo T, Minneapolis, MN, UNITED STATES
       Verfaillie, catherine M, St Paul, MN, UNITED STATES
       Reyes, Morayma, Minneapolis, MN, UNITED STATES
I      US 2004107453      A1   20040603
I      US 2004-467963     A1   20040105 (10)
       WO 2002-US4652          20020214
T      Utility
S      APPLICATION
N.CNT 4100
NCL    INCLM: 800/018.000
       INCLS: 424/093.700; 800/021.000; 435/353.000; 435/354.000; 435/366.000
CL     NCLM:  800/018.000
       NCLS:  424/093.700; 800/021.000; 435/353.000; 435/354.000; 435/366.000
C      [7]
       ICM: A01K067-027
       ICS: C12N005-06; C12N005-08
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4   ANSWER 3 OF 55  USPATFULL on STN
N      2004:113656  USPATFULL
I      Immune privileged cells for delivery of proteins and peptides
N      John, Constance Mary, San Francisco, CA, UNITED STATES
I      US 2004086494      A1   20040506
I      US 2001-941398     A1   20010828 (9)
LI     Continuation-in-part of Ser. No. US 1998-131501, filed on 9 Aug 1998,
       ABANDONED Continuation-in-part of Ser. No. US 1996-726531, filed on 7
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Oct 1996, ABANDONED
DT Utility
FS APPLICATION
LN.CNT 4805
INCL INCLM: 424/093.210
INCLS: 435/366.000
NCL NCLM: 424/093.210
NCLS: 435/366.000
IC [7]
ICM: A61K048-00
ICS: C12N005-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 4 OF 55 USPATFULL on STN
AN 2004:82751 USPATFULL
TI Neurogenesis from hepatic stem cells
IN Petersen, Bryon E., Gainesville, FL, UNITED STATES
Deng, Jie, Gainesville, FL, UNITED STATES
PI US 2004063202 A1 20040401
AI US 2003-651829 A1 20030828 (10)
PRAI US 2002-406513P 20020828 (60)
DT Utility
FS APPLICATION
LN.CNT 633
INCL INCLM: 435/368.000
NCL NCLM: 435/368.000
IC [7]
ICM: C12N005-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 5 OF 55 USPATFULL on STN
AN 2004:30644 USPATFULL
TI Proteins and nucleic acids encoding same
IN Spytek, Kimberly A., New Haven, CT, UNITED STATES
Li, Li, Branford, CT, UNITED STATES
Wolenc, Adam R., New Haven, CT, UNITED STATES
Vernet, Corine, North Branford, CT, UNITED STATES
Eisen, Andrew J., Rockville, MD, UNITED STATES
Liu, Xiaohong, Lexington, MA, UNITED STATES
Malyankar, Uriel M., Branford, CT, UNITED STATES
Shimkets, Richard A., Guilford, CT, UNITED STATES
Tchernev, Velizar, Branford, CT, UNITED STATES
Spaderna, Steven K., Berlin, CT, UNITED STATES
Gorman, Linda, Branford, CT, UNITED STATES
Kekuda, Ramesh, Norwalk, CT, UNITED STATES
Patturajan, Meera, Branford, CT, UNITED STATES
Gusev, Vladimir Y., Madison, CT, UNITED STATES
Gangolli, Esha A., Madison, CT, UNITED STATES
Guo, Xiaojia (Sasha), Branford, CT, UNITED STATES
Shenoy, Suresh G., Branford, CT, UNITED STATES
Rastelli, Luca, Guilford, CT, UNITED STATES
Casman, Stacie J., North Haven, CT, UNITED STATES
Boldog, Ferenc L., North Haven, CT, UNITED STATES
Burgess, Catherine E., Wethersfield, CT, UNITED STATES
Edinger, Shlomit R., New Haven, CT, UNITED STATES
Ellerman, Karen, Branford, CT, UNITED STATES
Gunther, Erik, Branford, CT, UNITED STATES
Smithson, Glennda, Guilford, CT, UNITED STATES
Millet, Isabelle, Milford, CT, UNITED STATES
MacDougall, John R., Hamden, CT, UNITED STATES
I US 2004022781 A1 20040205
I US 2001-38854 A1 20011231 (10)
RAI US 2000-258928P 20001229 (60)
US 2001-259415P 20010102 (60)
US 2001-259785P 20010104 (60)
US 2001-269814P 20010220 (60)
US 2001-279832P 20010329 (60)
US 2001-279833P 20010329 (60)
US 2001-279863P 20010329 (60)
US 2001-283889P 20010413 (60)
US 2001-284447P 20010418 (60)
US 2001-286683P 20010425 (60)
US 2001-294080P 20010529 (60)
US 2001-312915P 20010816 (60)
US 2001-313325P 20010817 (60)
US 2001-322699P 20010917 (60)

US 2001-333350P 20011126 (60)
DT Utility
FS APPLICATION
LN.CNT 19237
INCL INCLM: 424/130.100
INCLS: 435/006.000; 435/069.100; 435/320.100; 435/325.000; 435/007.200; 530/350.000; 536/023.100; 530/388.250
NCL NCLM: 424/130.100
NCLS: 435/006.000; 435/069.100; 435/320.100; 435/325.000; 435/007.200; 530/350.000; 536/023.100; 530/388.250
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C07H021-04; A61K039-395; C12P021-02; C12N005-06; C07K014-47; C07K016-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 55 USPATFULL on STN
AN 2004:41477 USPATFULL
TI Laminin 5, 13 and 14 and uses thereof
IN Brunken, William J., Canton, MA, United States
Libby, Richard R., Hingham, MA, United States
Hunter, Dale D., Canton, MA, United States
Burgeson, Robert E., Marblehead, MA, United States
PA The General Hospital Corporation, Boston, MA, United States (U.S. corporation)
PI US 6693169 B1 20040217
AI US 1999-415625 19991012 (9)
PRAI US 1998-104430P 19981015 (60)
US 1998-104044P 19981013 (60)
DT Utility
FS GRANTED
LN.CNT 2123
INCL INCLM: 530/350.000
INCLS: 530/362.000
NCL NCLM: 530/350.000
NCLS: 530/362.000
IC [7]
ICM: C07K014-78
EXF 435/320.1; 435/252.3; 435/365.1; 514/8; 536/23.1; 530/350; 530/362
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 2004:361456 CAPLUS
TI Bone marrow ***transdifferentiation*** in brain after transplantation: a retrospective study
AU Cogle, Christopher R.; Yachnis, Anthony T.; Laywell, Eric D.; Zander, Dani S.; Wingard, John R.; Steindler, Dennis A.; Scott, Edward W.
CS Program in Stem Cell Biology and Regenerative Medicine, University of Florida Shands Cancer Center, Gainesville, FL, USA
SO Lancet (2004), 363(9419), 1432-1437
CODEN: LANCAO; ISSN: 0140-6736
PB Elsevier Science Ltd.
DT Journal
LA English
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2004:374735 SCISEARCH
GA The Genuine Article (R) Number: 812RW
TI Umbilical cord blood stem cells can expand hematopoietic and neuroglial progenitors in vitro
AU McGuckin C P (Reprint); Forraz N; Allouard Q; Pettengell R
CS St George Hosp, Sch Med, King George Lab, Cranmer Terrace, London SW17 0RE, England (Reprint); St George Hosp, Sch Med, King George Lab, London SW17 0RE, England; Kingston Univ, London, England; Kingston Univ, Sch Life Sci, Kingston upon Thames KT1 2EE, Surrey, England; St George Hosp, Sch Med, Dept Basic Med Sci, London, England; St George Hosp, Sch Med, Dept Cellular & Mol Med, London, England
CYA England
SO EXPERIMENTAL CELL RESEARCH, (1 MAY 2004) Vol. 295, No. 2, pp. 350-359.
Publisher: ACADEMIC PRESS INC ELSEVIER SCIENCE, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495 USA.
ISSN: 0014-4827.
DT Article; Journal
LA English

REC Reference Count: 57
     ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4   ANSWER 9 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
     DUPLICATE 2
AN   2004:300585 BIOSIS
DN   PREV200400301616
TI   Fate of donor hematopoietic cells in demyelinating mutant mouse, twitcher,
     following transplantation of GFP+ bone marrow cells.
AU   Yagi, Takashi; McMahon, Eileen J.; Takikita, Shoichi; Mohri, Ikuko;
     Matsushima, Glenn K.; Suzuki, Kinuko [Reprint Author]
CS   Dept Pathol and Lab MedSch Med, Univ N Carolina, 919A Brinkhous Bullitt
     Bldg,CB 7525, Chapel Hill, NC, 27599, USA
     kis@med.unc.edu
SO   Neurobiology of Disease, (June 2004) Vol. 16, No. 1, pp. 98-109. print.
     ISSN: 0969-9961 (ISSN print).
DT   Article
LA   English
ED   Entered STN: 30 Jun 2004
     Last Updated on STN: 30 Jun 2004

L4   ANSWER 10 OF 55 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 3
AN   10315526 IFIPAT;IFIUDB;IFICDB
TI   TRANS-DIFFERENTIATION AND RE-DIFFERENTIATION OF SOMATIC CELLS AND
      PRODUCTION OF CELLS FOR CELL THERAPIES; CONTROLLING DIFFERENTIATION IN
      SOMATIC CELLS; GENERATE PREFERENTIAL SOMATIC CELL CULTURE, INCUBATE WITH
      ENZYME INHIBITORS, MONITOR DIFFERENTATION INTO ALTERNATE CELL TYPE
IN   Dominko Tanja; Malcuit Christopher; Page Raymond
PA   Unassigned Or Assigned To Individual (68000)
PI   US 2003059939   A1 20030327
AI   US 2002-228296   20020827
PRAI US 2001-314654P   20010827 (Provisional)
FI   US 2003059939   20030327
DT   Utility; Patent Application - First Publication
FS   CHEMICAL
      APPLICATION
CLMN 20
GI   5 Figure(s).
     FIGS. 1 and 2: Cells with neuronal morphology produced by treating bovine
      fetal fibroblasts CB at 2.5-7.5 mu g/m and culturing them under
      conditions that induce neural differentiation. The cells in FIG. 1 were
      observed with phase contrast microscopy; those in FIG. 2 were observed by
      DIC. FIG. 1: (A) Control, (B) 2.5 mu g/ml, (C) 5.0, mu g/ml, (D) 7.5 mu
      g/ml
     FIGS. 3 and 4: Cells with neuronal morphology produced by treating bovine
      adult fibroblasts CB at 10.0 mu g/m and culturing them under conditions
      that induce neural differentiation.
     FIG. 5: Cells with neuronal morphology produced by treating human fetal
      fibroblasts CB at 5.0 mu g/m and culturing them under conditions that
      induce neural differentiation.
     (A) Control, (B) 2.5 mu g/ml, (C) 5.0 mu g/ml, (D) 7.5 mu g/ml
     FIG. 6: Photographs showing the presence of neural-specific markers nestin
      and Tuj1 in human fetal fibroblasts treated with CB at 5.0 mu g/m and
      cultured under conditions that induce neural differentiation.

L4   ANSWER 11 OF 55 USPATFULL on STN
AN   2003:312269 USPATFULL
TI   Stem cell-like cells
IN   Kruijer, Wiebe, Leusden, NETHERLANDS
PI   US 2003219866   A1   20031127
AI   US 2003-349505   A1   20030121 (10)
RLI   Continuation of Ser. No. WO 2001-NL561, filed on 20 Jul 2001, UNKNOWN
PRAI   EP 2000-202634   20000721
DT   Utility
FS   APPLICATION
LN.CNT 1309
INCL   INCLM: 435/069.100
       INCLS: 435/320.100; 435/366.000; 530/350.000; 536/023.500
NCL   NCLM: 435/069.100
       NCLS: 435/320.100; 435/366.000; 530/350.000; 536/023.500
IC   [7]
       ICM: C07K014-475
       ICS: C07H021-04; C12P021-02; C12N005-08
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4   ANSWER 12 OF 55 USPATFULL on STN

AN 2003:276702 USPATFULL
TI Phenotypic screen of chimeric proteins
IN Kim, Jin-Soo, Yuseong-gu, KOREA, REPUBLIC OF
Park, Kyung-Soon, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Dong-Ki, Yuseong-gu, KOREA, REPUBLIC OF
Seol, Wongi, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Horim, Chungcheongnam-do, KOREA, REPUBLIC OF
Lee, Seong-Il, Yuseong-gu, KOREA, REPUBLIC OF
Yang, Hyo-Young, Yuseong-gu, KOREA, REPUBLIC OF
Lee, Yangsoon, Yuseong-gu, KOREA, REPUBLIC OF
Jang, Young-Soon, Yuseong-gu, KOREA, REPUBLIC OF
PI US 2003194727 A1 20031016
AI US 2002-314669 A1 20021209 (10)
PRAI US 2001-338441P 20011207 (60)
US 2002-376053P 20020426 (60)
US 2002-400904P 20020802 (60)
US 2002-401089P 20020805 (60)
DT Utility
FS APPLICATION
LN.CNT 5577
INCL INCLM: 435/006.000
INCLS: 435/069.100; 435/320.100; 435/325.000; 435/252.300; 435/007.200; 435/254.200; 435/219.000
NCL NCLM: 435/006.000
NCLS: 435/069.100; 435/320.100; 435/325.000; 435/252.300; 435/007.200; 435/254.200; 435/219.000
IC [7]
ICM: C12Q001-68
ICS: G01N033-53; G01N033-567; C12N001-18; C12P021-02; C12N001-21; C12N005-06
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 55 USPATFULL on STN
AN 2003:265424 USPATFULL
TI Self-renewing pluripotent hepatic stem cells
IN Nakauchi, Hiromitsu, Ibaraki, JAPAN
Suzuki, Atsushi, Ibaraki, JAPAN
Taniguchi, Hideki, Ibaraki, JAPAN
Fukao, Katashi, Ibaraki, JAPAN
PI US 2003186439 A1 20031002
AI US 2002-93311 A1 20020306 (10)
DT Utility
FS APPLICATION
LN.CNT 1832
INCL INCLM: 435/370.000
NCL NCLM: 435/370.000
IC [7]
ICM: C12N005-08

L4 ANSWER 14 OF 55 USPATFULL on STN
AN 2003:119670 USPATFULL
TI Stem cells of the islets of langerhans and their use in treating diabetes mellitus
IN Habener, Joel F., Newton Centre, MA, UNITED STATES
Zulewski, Henryk, Basel, SWITZERLAND
Thomas, Melissa K., Boston, MA, UNITED STATES
Abraham, Elizabeth J., Quincy, MA, UNITED STATES
Vallejo, Mario, Madrid, SPAIN
Leech, Colin A., Boston, MA, UNITED STATES
Nolan, Anna Louise, Brookline, MA, UNITED STATES
Lechner, Andreas, Boston, MA, UNITED STATES
PI US 2003082155 A1 20030501
AI US 2002-120687 A1 20020411 (10)
RLI Continuation-in-part of Ser. No. US 2000-731261, filed on 6 Dec 2000, PENDING Continuation-in-part of Ser. No. US 2001-963875, filed on 26 Sep 2001, PENDING
PRAI US 1999-169082P 19991206 (60)
DT Utility
FS APPLICATION
LN.CNT 3060
INCL INCLM: 424/093.210
INCLS: 435/366.000
NCL NCLM: 424/093.210
NCLS: 435/366.000
IC [7]
ICM: A61K048-00

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      ICS: C12N005-08
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4   ANSWER 15 OF 55  USPATFULL on STN
N     2003:51122  USPATFULL
I     Gene expression alterations underlying the retardation of aging by
      caloric restriction in mammals
N     Weindruch, Richard H., Madison, WI, UNITED STATES
      Prolla, Tomas A., Madison, WI, UNITED STATES
      Lee, Cheol-Koo, Madison, WI, UNITED STATES
      Kayo, Tsuyoshi, Madison, WI, UNITED STATES
I     US 2003036079      A1   20030220
I     US 2002-178296     A1   20020624 (10)
RAI   US 2001-300949P     20010626 (60)
T     Utility
S     APPLICATION
N.CNT 2422
NCL   INCLM: 435/006.000
      INCLS: 435/007.210
CL    NCLM:  435/006.000
      NCLS:  435/007.210
C     [7]
      ICM: C12Q001-68
      ICS: G01N033-567
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4   ANSWER 16 OF 55  USPATFULL on STN
N     2003:44347  USPATFULL
I     Stem cells and their use in transplantation
N     Habener, Joel F., Newton Centre, MA, UNITED STATES
      Zulewski, Henryk, Basel, SWITZERLAND
      Abraham, Elizabeth J., Quincy, MA, UNITED STATES
      Vallejo, Mario, Madrid, SPAIN
      Faustman, Denise L., Weston, MA, UNITED STATES
      Thomas, Melissa K., Boston, MA, UNITED STATES
A     Massachusetts General Hospital (U.S. corporation)
I     US 2003031657      A1   20030213
I     US 2002-136891     A1   20020502 (10)
LI    Continuation-in-part of Ser. No. US 2000-731255, filed on 6 Dec 2000,
      PENDING
RAI   US 1999-169082P     19991206 (60)
      US 2000-215109P     20000628 (60)
      US 2000-238880P     20001006 (60)
T     Utility
S     APPLICATION
N.CNT 2495
NCL   INCLM: 424/093.210
      INCLS: 424/093.700
CL    NCLM:  424/093.210
      NCLS:  424/093.700
C     [7]
      ICM: A61K048-00
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4   ANSWER 17 OF 55  USPATFULL on STN
N     2003:228267  USPATFULL
I     Progenitor cells and methods and uses related thereto
N     Lu, Kuanghui, Brookline, MA, United States
      Pang, Kevin, Canton, MA, United States
      Rubin, Lee, Wellesley, MA, United States
A     ES Cell International Pte Ltd., SINGAPORE (non-U.S. corporation)
I     US 6610535         B1   20030826
I     US 2000-724632          20001128 (9)
LI    Continuation-in-part of Ser. No. US 2000-635370, filed on 9 Aug 2000
      Continuation-in-part of Ser. No. US 2000-499362, filed on 10 Feb 2000,
      now patented, Pat. No. US 6326201
T     Utility
S     GRANTED
N.CNT 3624
NCL   INCLM: 435/325.000
      INCLS: 435/363.000; 435/366.000; 435/372.200; 435/375.000; 435/377.000;
             435/384.000; 435/387.000; 435/391.000; 435/392.000
CL    NCLM:  435/325.000
      NCLS:  435/363.000; 435/366.000; 435/372.200; 435/375.000; 435/377.000;
             435/384.000; 435/387.000; 435/391.000; 435/392.000
C     [7]
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ICM: C12N005-00
ICS: C12N005-06
EXF 435/325; 435/363; 435/366; 435/372.2; 435/375; 435/377; 435/384; 435/387; 435/391; 435/392

L4 ANSWER 18 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2003:412372 SCISEARCH
GA The Genuine Article (R) Number: 674HH
TI Preservation of hematopoietic properties in transplanted bone marrow cells in the brain
AU Ono K; Yoshihara K; Suzuki H; Tanaka K F; Takii T; Onozaki K; Sawada M (Reprint)
CS Fujita Hlth Univ, Joint Res Div Therapies Against Intractable Dis, Inst Comprehens Med Sci, Joint Res Div, Therapies Against Intractable Dis, Toyoake, Aichi 4701192, Japan (Reprint); Nagoya City Univ, Grad Sch Pharmaceut Sci, Dept Mol Hlth Sci, Nagoya, Aichi, Japan
CYA Japan
SO JOURNAL OF NEUROSCIENCE RESEARCH, (15 MAY 2003) Vol. 72, No. 4, pp. 503-507.
Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012 USA.
ISSN: 0360-4012.
DT Article; Journal
LA English
REC Reference Count: 17
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 19 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2003:894280 SCISEARCH
GA The Genuine Article (R) Number: 728WA
TI Neurosurgical embryology. Part 4: What are stem-cells?
AU Kubis N (Reprint); Catala M
CS Univ Paris 06, Lab Histol & Embryol, 105 Blvd Hop, F-75634 Paris 13, France (Reprint); Univ Paris 06, Lab Histol & Embryol, F-75634 Paris 13, France; Univ Paris 06, UMR CNRS 7000, Fac Med Pitie Salpetriere, F-75634 Paris, France; Hop Lariboisiere, Lab Explorat Fonctionnelles Syst Nerveux Pr Levy, F-75475 Paris, France
CYA France
SO NEUROCHIRURGIE, (SEP 2003) Vol. 49, No. 4, pp. 449-456.
Publisher: MASSON EDITEUR, 21 STREET CAMILLE DESMOULINS, ISSY, 92789 MOULINEAUX CEDEX 9, FRANCE.
ISSN: 0028-3770.
DT Article; Journal
LA French
REC Reference Count: 23
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 20 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2003:596776 SCISEARCH
GA The Genuine Article (R) Number: 697AT
TI Marrow stromal cells, mitosis, and neuronal differentiation: Stem cell and precursor functions
AU Munoz-Elias G; Woodbury D; Black I B (Reprint)
CS UMDNJ, Robert Wood Johnson Med Sch, Dept Neurosci & Cell Biol, 675 Hoes Lane, CABM Bldg, Room 342, Piscataway, NJ 08854 USA (Reprint); UMDNJ, Robert Wood Johnson Med Sch, Dept Neurosci & Cell Biol, Piscataway, NJ 08854 USA
CYA USA
SO STEM CELLS, (JUN 2003) Vol. 21, No. 4, pp. 437-448.
Publisher: ALPHAMED PRESS, ONE PRESTIGE PLACE, STE 290, MIAMISBURG, OH 45342-3758 USA.
ISSN: 1066-5099.
DT Article; Journal
LA English
REC Reference Count: 33
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 21 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:140337 BIOSIS
PN PREV200400133709
TI ***Transdifferentiation*** potential of human hematopoietic cells isolated from mobilized peripheral blood.
AU Kuci, Selim [Reprint Author]; Schilbach, Karin [Reprint Author]; Handgretinger, Rupert; Buehring, Hans-Joerg [Reprint Author]; Jurecic, Roland; Schumm, Michael [Reprint Author]; Lang, Peter [Reprint Author]; Niethammer, Dietrich [Reprint Author]

Hematology/Oncology, University Children's Hospital, Tuebingen, Germany
Blood, (November 16 2003) Vol. 102, No. 11, pp. 334a. print.
Meeting Info.: 45th Annual Meeting of the American Society of Hematology. San Diego, CA, USA. December 06-09, 2003. American Society of Hematology.
CODEN: BLOOAW. ISSN: 0006-4971.
Conference; (Meeting)
Conference; (Meeting Poster)
Conference; Abstract; (Meeting Abstract)
English
Entered STN: 10 Mar 2004
Last Updated on STN: 10 Mar 2004

ANSWER 22 OF 55 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
DUPLICATE
2003:36781698 BIOTECHNO
Astrocytes as stem cells: Nomenclature, phenotype, and translation
Steindler D.A.; Laywell E.D.
Dr. D.A. Steindler, Department of Neuroscience, McKnight Brain Institute, University of Florida, 100 S. Newell Drive, Gainesville, FL 32610, United States.
E-mail: steindler@mbi.ufl.edu
GLIA, (01 JUL 2003), 43/1 (62-69), 77 reference(s)
CODEN: GLIAEJ ISSN: 0894-1491
Journal; Article
United States
English
English

ANSWER 23 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2003:56696 SCISEARCH
The Genuine Article (R) Number: 629BC
Somatic plasticity of neural stem cells: Fact or fancy?
Greco B (Reprint); Recht L
Univ Massachusetts, Sch Med, Dept Neurol, 55 Lake Ave N, Worcester, MA 01655 USA (Reprint); Univ Massachusetts, Sch Med, Dept Neurol, Worcester, MA 01655 USA
A USA
JOURNAL OF CELLULAR BIOCHEMISTRY, (1 JAN 2003) Vol. 88, No. 1, pp. 51-56.
Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012 USA.
ISSN: 0730-2312.
Article; Journal
English
C Reference Count: 38
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

ANSWER 24 OF 55 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
DUPLICATE
2003:36314696 BIOTECHNO
Fetal human hematopoietic stem cells can differentiate sequentially into neural stem cells and then ***astrocytes*** in vitro
Hao H.-N.; Zhao J.; Thomas R.L.; Parker G.C.; Lyman W.D.
Dr. H.-N. Hao, Department of Pediatrics, Children's Res. Center of Michigan, 3901 Beaubien, Detroit, MI 48201, United States.
E-mail: HsiaoNan.Hao@wayne.edu
Journal of Hematotherapy and Stem Cell Research, (2003), 12/1 (23-32), 59 reference(s)
CODEN: JHERFM ISSN: 1525-8165
Journal; Article
United States
English
English

ANSWER 25 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
2004:146096 BIOSIS
PREV200400145915
Transdifferentiation of adult bone marrow stem cells into neural cells in vitro.
Sogos, V. [Reprint Author]; Reali, C. [Reprint Author]; Scintu, F. [Reprint Author]; Pillai, R. [Reprint Author]; Badiali, M.; Sanna, A.; Argiolu, F.
Dept. of Cytomorphology, Univ. of Cagliari, Monserrato (CA), Italy
Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 789.8. http://sfn.scholarone.com. e-file.
Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New

Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004

L4 ANSWER 26 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:196055 BIOSIS
DN PREV200400196614
TI Definition of stem cell potential: murine embryonic and adult neural stem cells share gene expression profiles and biological properties.
AU Cova, L. [Reprint Author]; Ratti, A. [Reprint Author]; Quattrone, A.; Mantegna, L. [Reprint Author]; Fantozzi, R. [Reprint Author]; Silani, V. [Reprint Author]
CS Dept. of Neurological Sci., IRCCS Ospedale Maggiore, Milan, Italy
SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 242.16. http://sfn.scholarone.com. e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 14 Apr 2004
Last Updated on STN: 14 Apr 2004

L4 ANSWER 27 OF 55 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
DUPLICATE 6
AN 2003-08715 BIOTECHDS
TI Preparing neural stem cells, useful for transplantation, e.g. for treating neurodegeneration e.g. in multiple sclerosis, by in vitro or in vivo culture of hematopoietic stem cells;
stem cell culture for tissue engineering and cell therapy
AU ALARCON MARTINEZ P; BONILLA JIMENEZ S; SILVA GONZALEZ A G; MARTINEZ PEREZ S
PA UNIV ELCHE HERNANDEZ MIGUEL
PI WO 2002096439 5 Dec 2002
AI WO 2002-ES253 27 May 2002
PRAI ES 2001-1223 28 May 2001; ES 2001-1223 28 May 2001
DT Patent
LA Spanish
OS WPI: 2003-140415 [13]

L4 ANSWER 28 OF 55 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 7
AN 10220601 IFIPAT;IFIUDB;IFICDB
TI EMBRYONIC STEM CELLS AND NEURAL PROGENITOR CELLS DERIVED THEREFROM; REGENERATION CELLS OF NERVOUS SYSTEM
IN Ben-Hur Tamir (IL); Pera Martin Frederick (AU); Reubinoff Benjamin Eithan (IL)
PA Unassigned Or Assigned To Individual (68000)
PI US 2002164308 A1 20021107
AI US 2001-970543 20011004
RLI US 2001-808382 20010314 CONTINUATION-IN-PART PENDING
PRAI AU 2000-6211 20000314
AU 2000-1279 20001106
AU 2001-2920 20010206
FI US 2002164308 20021107
DT Utility; Patent Application - First Publication
FS CHEMICAL
APPLICATION
CLMN 73
GI 38 Figure(s).
FIG. 1 shows phase contrast micrographs of ES cells and their differentiated progeny. A, inner cell mass three days after plating. B, colony of ES cells. C, higher magnification of an area of an ES cell colony. D, an area of an ES cell colony undergoing spontaneous differentiation during routine passage. E, a colony four days after plating in the absence of a feeder cell layer but in the presence of 2000 units/ml human LIF undergoing differentiation in its periphery,. F, neuronal cells in a high density culture. Scale bars: A and C, 25 microns; B and E, 100 microns; D and F, 50 microns.
FIG. 2 shows marker expression in ES cells and their differentiated somatic progeny. A, ES cell colony showing histochemical staining for alkaline phosphatase. B. ES cell colony stained with antibody MC-813-70 recognising the SSEA-4 epitope. C, ES cell colony stained with antibody TRAL-60. D, ES cell colony stained with antibody GCTM-2. E, high density

culture, cell body and processes of a cell stained with antineurofilament 68 kDa protein. F, high density culture, cluster of cells and network of processes emanating from them stained with antibody against neural cell adhesion molecule. G, high density culture, cells showing cytoplasmic filaments stained with antibody to muscle actin. H, high density culture, cell showing cytoplasmic filaments stained with antibody to desmin. Scale bars: A, 100 microns; B-D, and F, 200 microns; E, G and H, 50 microns.

FIG. 3 shows RT-PCR analysis of gene expression in ES cells and their differentiated derivatives. All panels show 1.5% agarose gels stained with ethidium bromide. A, expression of Oct-4 and b-actin in ES stem cells and high density cultures. Lane 1, 100 bpDNA ladder. Lane 2, stem cell culture, b-actin. Lane 3, stem cell culture, Oct-4. Lane 4, stem cell culture, PCR for Oct-4 carried out with omission of reverse transcriptase. Lane 5, high density culture, b-actin. Lane 6, high density culture, Oct-4. Lane 7, high density culture, PCR for Oct-4 carried out with omission of reverse transcriptase. b-actin band is 200 bp and Oct-4 band is 320 bp. B, expression of nestin and Pax-6 in neural progenitor cells that were derived from differentiating ES colonies. Left lane, 100 bp DNA ladder; lane 1, b-actin in HX 142 neuroblastoma cell line (positive control for nestin PCR) ; lane 2, b-actin in neural progenitor cells; lane 3, nestin in HX 142 neuroblastoma cell line; lane 4, nestin in neural progenitor cells; lane 5, nestin PCR on same sample as lane 4 without addition of reverse transcriptase; lane 6, Pax-6; lane 7, Pax-6 PCR on same sample as line 6 without addition of reverse transcriptase. Nestin band is 208 bp, Pax-6 is 274 bp. C, expression of glutamic acid decarboxylase in cultures of neurons. Left lane, 100 bp DNA ladder; lane 1, b-actin; lane 2, b-actin PCR on same sample as lane 1 without addition of reverse transcriptase; lane 3, glutamic acid decarboxylase; lane 4 glutamic acid decarboxylase on same sample as lane 3 without addition of reverse transcriptase. Glutamic acid decarboxylase band is 284 bp. D, expression of GABA A alpha 2 receptor. Left lane, 100 bp DNA ladder; lane 1, b-actin; lane 2, GABA A alpha 2 receptor; lane 3, PCR without addition of reverse transcriptase. GABA A alpha 2 receptor subunit band is 471 bp.

FIG. 4 shows histology of differentiated elements found in teratomas formed in the testis of SCID mice following inoculation of HES-1 or HES-2 colonies. A, cartilage and squamous epithelium, HES-2. B, neural rosettes, HES-2. C, ganglion, gland and striated muscle, HES-1. D, bone and cartilage, HES-1. E, glandular epithelium, HES-1. F, ciliated columnar epithelium, HES-1. Scale bars: A-E, 100 microns; F, 50 microns.

FIG. 5 shows phase contrast microscopy and immunochemical analysis of marker expression in neural progenitor cells isolated from differentiating ES cultures. A, phase contrast image of a sphere formed in serum-free medium. B-D, indirect immunofluorescence staining of spheres, 4 hours after plating on adhesive substrate, for N-CAM, nestin, and vimentin respectively. In C and D, cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining; confocal examination revealed that cells throughout the sphere were decorated by both antibodies. Scale bar is 100 microns in all panels.

FIG. 6 shows phase contrast appearance and marker expression in cultures of neurons derived from progenitor cells shown in FIG. 5. A, phase contrast micrograph of differentiated cells emanating from a sphere plated onto adhesive surface. B-H, indirect immunofluorescence microscopy of differentiated cells decorated with antibodies against 200 kDa neruofilament protein (B), 160 kDa neurofilament protein (C), MAP2a+b (D), glutamate (E), synaptophysin (F), glutamic acid decarboxylase (G) and beta-tubulin (H). Scale bars: A, ;B, 100 microns; C, 200mircons; D, 20 microns; E and F, 10 microns; G, 20 microns; H, 25 microns.

FIG. 7 shows neural precursors proliferating as a monolayer on a plastic tissue culture dish in the presence of EGF and bFGF. These monolayer cultures of proliferating cells were obtained after prolonged cultivation (2-3 weeks) of the spheres in the presence of growth factors without sub-culturing.

FIG. 8 shows phase contrast appearance of a culture consisting of differentiated neural cells.

FIG. 9 shows phase contrast appearance of a sphere that is formed 72 hours after the transfer of a clump of undifferentiated ES cells into serum free medium (Scale bar 100 microns).

FIG. 10 shows linear correlation between the volume of spheres and the number of progenitor cells within a sphere. Spheres of various diameters that were generated from differentiating ES colonies and were propagated for 14-15 weeks were dissaggregated into single cell suspension and the number of cells per sphere was counted.

FIG. 11 shows indirect immunofluorescence staining of a sphere, 4 hours after plating on adhesive substrate, for N-CAM. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium

and propagation of the resulting spheres for 5 passages. (Scale bar 100 microns).

FIG. 12 shows indirect immunofluorescence membraneous staining for N-CAM of single cells at the periphery of a sphere 4 hours after plating on adhesive substrate. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of the resulting spheres for 5 passages. (Scale bar 25 microns).

FIG. 13 shows indirect immunofluorescence staining of a spheres 4 hours after plating on adhesive substrate for the intermediate filament nestin. Cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of resulting spheres for 5 passages. (Scale bar 25 microns).

FIG. 14 shows indirect immunofluorescence microscopy of a differentiated cell decorated with antibodies against the oligodendrocyte progenitor marker O4. (Scale bar 12.5 microns).

FIG. 15 shows indirect immunofluorescence staining of a sphere 4 hours after plating on adhesive substrate for the intermediate filament vimentin. Cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of resulting spheres for 7 passages. (Scale bar 25 microns).

FIG. 16 shows the growth pattern of spheres that were generated directly from undifferentiated ES cells. Each bar represents the mean (+-SD) increment in volume per week of 24 spheres at first to sixteen weeks after derivation. A more excessive growth rate is evident during the first 5 weeks.

FIG. 17 shows persistent growth in the volume of spheres along time. Each bar represents the mean (+-SD) increment in volume per week of 24 spheres at nine to twenty one weeks after derivation. The spheres were generated from differentiating ES colonies.

FIG. 18 shows linear correlation between the volume of spheres and the number of progenitor cells within a sphere. Spheres of various diameters, that were generated directly from undifferentiated ES cells and were propagated 5-7 weeks, were dissaggregated into single cell suspension and the number of cells per sphere was counted.

FIG. 19 shows RT-PCR analysis of gene expression in ES cells (a week after passage) and neural spheres derived from differentiating colonies and directly from undifferentiated ES cell. All panels show 2% agarose gels stained with ethidium bromide. Lanes 1, 2 and 3, Oct-4 in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 4, stem cell culture, PCR for Oct-4 carried out with omission of reverse transcriptase. Lanes 5, 6, and 7, nestin in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 8, stem cell culture, PCR for nestin carried out with omission of reverse transcriptase. Lanes 9, 10 and 11, Pax-6 in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 12, stem cell culture, PCR for Pax-6 carried out with omission of reverse transcriptase. Lane 13, 100 bp DNA ladder. Oct-4 band is 320 bp, nestin is 208 bp and Pax-6 is 274 bp.

FIG. 20 shows indirect immunofluorescence microscopy of differentiated ***astrocyte*** cells decorated with antibody against GFAP. (Scale bar 25 microns).

FIG. 21 shows indirect immunofluorescence microscopy of brain sections of two mice (A and B) 4 weeks after transplantation of human neural precursors prelabeled with BrDU. Cells with a nucleus decorated with anti BrDU (brown stain, black arrow) are evident near the ventricular surface (white arrow indicate mouse unstained nuclei, bar=20 microns).

FIG. 22 shows indirect immunofluorescence microscopy of brain sections of a mice 4 weeks after transplantation of human neural precursors prelabeled with BrDU. Wide spread distribution of transplanted human cells decorated by anti BrDU antibodies is evident in the periventricular areas. The periventricular area in A is demonstrated at a higher magnification in B and C. (Bars=150, 60 and 30 microns in A, B and C).

FIG. 23 shows indirect immunocytochemical microscopy of brain sections of a mice 4 weeks after transplantation of human neural precursors prelabeled with BrDU. The transplanted human cells are migrating along the rostral migratory stream (bar=150 microns).

FIG. 24 shows RT-PCR analysis of gene expression in neural spheres derived from differentiating (A) and undifferentiated (B) ES cells. All panels show 2% agarose gels stained with ethidium bromide. Lanes 1 and 10, 100 bpDNA ladder; Lane 2, CD34; Lane 3, Flk-1; lane4, HNF-3; lane 5, alfafetoprotein. Lanes 6-9 PCR reaction on the same samples as lanes 2-5 carried out with the omission of reverse transcriptase. CD-34 band is 200

bp, Flk-1 is 199, HNF-3 is 390, AFP is 340 bp.

FIG. 25 shows by RT-PCR analysis the expression of GFAP and the pip gene in differentiated cells from neural spheres derived from differentiating ES cell colonies. The expression of GFAP indicates differentiation into ***astrocytes*** while the presence of both dm-20 and pip transcripts indicate that differentiation into oligodendrocyte cells has occurred. Lanes 2, 4, 6 and lanes 3, 5, 7 are from two separate RNA samples from differentiated spheres that were independently derived from ES cells. Lane 1 and 8, 100 bp DNA ladder; Lanes 2 and 4, GFAP; lanes 3 and 5, plp and dm-20; lanes 6 and 7, PCR reaction on the same samples as lanes 3 and 5 carried out with the omission of reverse transcriptase. GFAP band is 383, pip band is 354 bp and dm-20 is 249 bp.

FIG. 26 shows a dark field stereomicroscopic photograph of areas (arrows) destined to give rise to neural precursors in a differentiating ES cell colony 3 weeks after passage (bar=1.6 mm).

FIG. 27 shows indirect immunochemical analysis of marker expression in cultures of neurons derived from progenitor cells that were derived directly from undifferentiated ES cells: A, indirect immunofluorescence microscopy of neurits decorated with antibody against 160 kDa neurofilament protein. B and C, indirect immunofluorescence staining of differentiated cells for MAP2a+b and beta-tubulin III. Scale bars: A 100 microns, B and C 10 microns.

FIG. 28 shows indirect immunochemical analysis of the expression of tyrosine hydroxylase. Neurits (A) and a differentiated cell (B) are decorated with antibodies against tyrosine hydroxylase. Scale bars: 30 microns.

FIG. 29 shows in vivo differentiation into ***astrocyte*** cells of transplanted human neural progenitors prelabeled with BrDU. Donor cells are identified by indirect immunochemical detection of BrDU (dark nuclei, arrows). Duel staining demonstrates donor cells decorated by anti GFAP (orange). Transplanted cells are migrating into the brain parenchyma (white arrow) and are also found in the periventricular zone (dark arrow) (A), A higher magnification of cells that have differentiated into ***astrocytes*** and migrated into the host brain (B).

FIG. 30 shows in vivo differentiation into oligodendrocyte cells of transplanted human neural progenitors prelabeled with BrDU. Donor cells are identified by indirect immunochemical detection of BrDU (dark nuclei, arrows). Duel staining demonstrates donor cells decorated by anti CNPase (orange).

FIG. 31 shows cumulative growth curve for human neural progenitors derived from differentiating colonies. (A) Continuous growth is evident during an 18-22 week period. The increment in the volume of the spheres was continuously monitored as an indirect measure of the increase in cell numbers. A linear positive correlation between the volume of the spheres and the number of cells within the spheres (B, insert) was maintained along cultivation. It supported the validity of monitoring the increment of sphere volume as an indirect indicator of cell proliferation.

FIG. 32 shows RT-PCR analysis of the expression of non-neural markers in human ES derived spheres. All panels show 2% agarose gels stained with ethidium bromide. The symbols + and indicate whether the PCR reaction was performed with or without the addition of reverse transcriptase. A 1 Kb plus DNA ladder was used in all panels. beta-actin band is 291 bp, keratin is 780 bp, Flk-1 is 199 bp, CD34 is 200 bp, AC-133 is 200 bp, transferin is 367 bp, amylase is 490 bp and alpha 1 anti trypsin is 360 bp.

FIG. 33 shows a phase contrast micrograph of differentiated cells growing out from a sphere 2 weeks after plating onto an adhesive surface and culture in the absence of growth factors. Scale bar is 200 mu m.

FIG. 34 shows RT-PCR analysis of the expression of neuronal and glial markers in differentiated cells originating from human ES derived neural spheres. All panels show 2% agarose gels stained with ethidium bromide. The symbols + and -indicate whether the PCR reaction was performed with or without the addition of reverse transcriptase. A 1 Kb plus DNA ladder was used in all panels. Plp and dm-20 bands are 354 bp and 249 bp respectively, MBP is 379 bp, GFAP is 383 bp, NSE is 254 bp and NF-M is 430 bp.

FIG. 35 shows indirect immunochemical analysis of the expression of serotonin (A) and GABA (B). Scale bars are 20 mu m.

FIG. 36 shows dissemination of transplanted BrdU+ human ESderived neural progenitor cells in the mouse host brain.

(A) At 2 days after transplantation most cells were found lining the ventricular wall. (B) After 4-6 weeks most cells had left the ventricles (V) and populated the corpus callosum (CC), fimbria (fim), internal capsule (i.c.). BrdU+ cells were not found in the striatum (str) or CA region of the hippocampus (hipp). (C) Chains of BrdU+ cells were found in the rostral migratory stream (RMS). (D) BrdU+ cells in the

periventricular white matter. (E) Higher magnification of D, to show nuclear specific localization of BrdU.

FIG. 37 shows identification of the transplanted cells in the brain by human and neural-lineage specific markers. (A) A typical chain of transplanted cells in the corpus callosum, stained with human specific anti-mitochondrial antibody. The mitochondrial staining (green fluorescence) on Nomarsky background (blue, cell nuclei indicated by asterisk) shows a typical perinuclear localization. (B) Double staining for BrdU (green fluorescence) and human specific anti ribonuclear protein (red fluorescence) shows nuclear co-localization, indicating that BrdU+ cells were indeed of human origin. (C) A GFAP+ ***astrocyte*** (red) from the periventricular region, colabeled with BrdU (green), indicating its origin from the graft. (D) An NG2+ oligodendrocyte progenitor (red) in the periventricular region, co-labeled with BrdU (green). (E) A CNPase+ oligodendrocyte (red) in the corpus callosum, colabeled with BrdU (immunohistochemistry, shown as dark nucleus in Nomarsky). (F) Neuronal processes in the fimbria, stained with a human specific anti-70 kDa neurofilament. (G) A beta III-tubulin+ neuron (green fluorescence) in the olfactory bulb, co-labeled with BrdU (as dark nucleus (arrow) in Nomarsky). Bars=10 mu m. !

ANSWER 29 OF 55 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 8

10124433 IFIPAT;IFIUDB;IFICDB

EMBRYONIC STEM CELLS AND NEURAL PROGENITOR CELLS DERIVED THEREFROM; SUCH AS NEURAL PROGENITOR CELLS CAPABLE OF GIVING RISE TO MATURE SOMATIC CELLS INCLUDING NEURAL CELLS AND/OR GLIAL CELLS RECOGNIZABLE BY EXPRESSION OF SPECIFIC MARKERS

Ben-Hur Tamir (IL); Pera Martin Frederick (AU); Reubinoff Benjamin Eithan (IL)

Unassigned Or Assigned To Individual (68000)

US 2002068045 A1 20020606

US 2001-808382 20010314

AI AU 2000-6211 20000314

AU 2000-1279 20001106

AU 2001-2920 20010206

US 2002068045 20020606

Utility; Patent Application - First Publication

CHEMICAL

APPLICATION

MN 85

30 Figure(s).

FIG. 1 shows phase contrast micrographs of ES cells and their differentiated progeny. A, inner cell mass three days after plating. B, colony of ES cells. C, higher magnification of an area of an ES cell colony. D, an area of an ES cell colony undergoing spontaneous differentiation during routine passage. E, a colony four days after plating in the absence of a feeder cell layer but in the presence of 2000 units/ml human LIF undergoing differentiation in its periphery, F, neuronal cells in a high density culture. Scale bars: A and C, 25 microns; B and E, 100 microns; D and F, 50 microns.

FIG. 2 shows marker expression in ES cells and their differentiated somatic progeny. A, ES cell colony showing histochemical staining for alkaline phosphatase. B. ES cell colony stained with antibody MC-813-70 recognising the SSEA-4 epitope. C, ES cell colony stained with antibody TRA1-60. D, ES cell colony stained with antibody GCTM-2. E, high density culture, cell body and processes of a cell stained with antineurofilament 68 kDa protein. F, high density culture, cluster of cells and network of processes emanating from them stained with antibody against neural cell adhesion molecule. G, high density culture, cells showing cytoplasmic filaments stained with antibody to muscle actin. H, high density culture, cell showing cytoplasmic filaments stained with antibody to desmin. Scale bars: A, 100 microns; B-D, and F, 200 microns; E, G and H, 50 microns.

FIG. 3 shows RT-PCR analysis of gene expression in ES cells and their differentiated derivatives. All panels show 1.5% agarose gels stained with ethidium bromide. A, expression of Oct-4 and b-actin in ES stem cells and high density cultures. Lane 1, 100 bpDNA ladder. Lane 2, stem cell culture, b-actin. Lane 3, stem cell culture, Oct-4. Lane 4, stem cell culture, PCR for Oct-4 carried out with omission of reverse transcriptase. Lane 5, high density culture, b-actin. Lane 6, high density culture, Oct-4. Lane 7, high density culture, PCR for Oct-4 carried out with omission of reverse transcriptase. b-actin band is 200 bp and Oct-4 band is 320 bp. B, expression of nestin and Pax-6 in neural progenitor cells that were derived from differentiating ES colonies. Left lane, 100 bp DNA ladder; lane 1, b-actin in HX 142 neuroblastoma cell line (positive control for nestin PCR) ; lane 2, b-actin in neural progenitor cells; lane 3, nestin in HX 142 neuroblastoma cell line; lane

4, nestin in neural progenitor cells; lane 5, nestin PCR on same sample as lane 4 without addition of reverse transcriptase; lane 6, Pax-6; lane 7, Pax-6 PCR on same sample as line 6 without addition of reverse transcriptase. Nestin band is 208 bp, Pax-6 is 274 bp. C, expression of glutamic acid decarboxylase in cultures of neurons. Left lane, 100 bp DNA ladder; lane 1, b-actin; lane 2, b-actin PCR on same sample as lane 1 without addition of reverse transcriptase; lane 3, glutamic acid decarboxylase; lane 4 glutamic acid decarboxylase on same sample as lane 3 without addition of reverse transcriptase. Glutamic acid decarboxylase band is 284 bp. D, expression of GABA A alpha 2 receptor. Left lane, 100 bp DNA ladder; lane 1, b-actin; lane 2, GABA A alpha 2 receptor; lane 3, PCR without addition of reverse transcriptase. GABA A alpha 2 receptor subunit band is 471 bp.

FIG. 4 shows histology of differentiated elements found in teratomas formed in the testis of SCID mice following inoculation of HES-1 or HES-2 colonies. A, cartilage and squamous epithelium, HES-2. B, neural rosettes, HES-2. C, ganglion, gland and striated muscle, HES-1. D, bone and cartilage, HES-1. E, glandular epithelium, HES-1. F, ciliated columnar epithelium, HES-1. Scale bars: A-E, 100 microns; F, 50 microns.

FIG. 5 shows phase contrast microscopy and immunochemical analysis of marker expression in neural progenitor cells isolated from differentiating ES cultures. A, phase contrast image of a sphere formed in serum-free medium. B-D, indirect immunofluorescence staining of spheres, 4 hours after plating on adhesive substrate, for N-CAM, nestin, and vimentin respectively. In C and D, cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining; confocal examination revealed that cells throughout the sphere were decorated by both antibodies. Scale bar is 100 microns in all panels.

FIG. 6 shows phase contrast appearance and marker expression in cultures of neurons derived from progenitor cells shown in FIG. 5. A, phase contrast micrograph of differentiated cells emanating from a sphere plated onto adhesive surface. B-H, indirect immunofluorescence microscopy of differentiated cells decorated with antibodies against 200 kDa neruofilament protein (B), 160 kDa neurofilament protein (C), MAP2a+b (D), glutamate (E), synaptophysin (F), glutamic acid decarboxylase (G) and beta-tubulin (H). Scale bars: A,;B, 100 microns; C, 200 mircons; D, 20 microns; E and F, 10 microns; G, 20 microns; H, 25 microns.

FIG. 7 shows neural precursors proliferating as a monolayer on a plastic tissue culture dish in the presence of EGF and bFGF. These monolayer cultures of proliferating cells were obtained after prolonged cultivation (2-3 weeks) of the spheres in the presence of growth factors without sub-culturing.

FIG. 8 shows phase contrast appearance of a culture consisting of differentiated neural cells.

FIG. 9 shows phase contrast appearance of a sphere that is formed 72 hours after the transfer of a clump of undifferentiated ES cells into serum free medium (Scale bar 100 microns).

FIG. 10 shows linear correlation between the volume of spheres and the number of progenitor cells within a sphere. Spheres of various diameters that were generated from differentiating ES colonies and were propagated for 14-15 weeks were dissaggregated into single cell suspension and the number of cells per sphere was counted.

FIG. 11 shows indirect immunofluorescence staining of a sphere, 4 hours after plating on adhesive substrate, for N-CAM. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of the resulting spheres for 5 passages. (Scale bar 100 microns).

FIG. 12 shows indirect immunofluorescence membraneous staining for N-CAM of single cells at the periphery of a sphere 4 hours after plating on adhesive substrate. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of the resulting spheres for 5 passages. (Scale bar 25 microns).

FIG. 13 shows indirect immunofluorescence staining of a spheres 4 hours after plating on adhesive substrate for the intermediate filament nestin. Cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and propagation of resulting spheres for 5 passages. (Scale bar 25 microns).

FIG. 14 shows indirect immunofluorescence microscopy of a differentiated cell decorated with antibodies against the oligodendrocyte progenitor marker 04. (Scale bar 12.5 microns).

FIG. 15 shows indirect immunofluorescence staining of a sphere 4 hours after plating on adhesive substrate for the intermediate filament vimentin. Cells at the base of the sphere were placed in plane of focus to illustrate filamentous staining. The sphere was generated by direct transfer of undifferentiated ES cells into serum free medium and

propagation of resulting spheres for 7 passages. (Scale bar 25 microns).

FIG. 16 shows the growth pattern of spheres that were generated directly from undifferentiated ES cells. Each bar represents the mean (+-SD) increment in volume per week of 24 spheres at first to twelve weeks after derivation. A more excessive growth rate is evident during the first 5 weeks.

FIG. 17 shows persistent growth in the volume of spheres along time. Each bar represents the mean (+-SD) increment in volume per week of 24 spheres at nine to twenty one weeks after derivation. The spheres were generated from differentiating ES colonies.

FIG. 18 shows linear correlation between the volume of spheres and the number of progenitor cells within a sphere. Spheres of various diameters, that were generated directly from undifferentiated ES cells and were propagated 5-7 weeks, were dissaggregated into single cell suspension and the number of cells per sphere was counted.

FIG. 19 shows RT-PCR analysis of gene expression in ES cells (a week after passage) and neural spheres derived from differentiating colonies and directly from undifferentiated ES cell. All panels show 2% agarose gels stained with ethidium bromide. Lanes 1, 2 and 3, Oct-4 in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 4, stem cell culture, PCR for Oct-4 carried out with omission of reverse transcriptase. Lanes 5, 6, and 7, nestin in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 8, stem cell culture, PCR for nestin carried out with omission of reverse transcriptase. Lanes 9, 10 and 11, Pax-6 in ES cell culture, neural spheres derived from differentiating colonies, neural spheres derived from undifferentiated ES cells. Lane 12, stem cell culture, PCR for Pax-6 carried out with omission of reverse transcriptase. Lane 13, 100 bp DNA ladder. Oct-4 band is 320 bp, nestin is 208 bp and Pax-6 is 274 bp.

FIG. 20 shows indirect immunofluorescence microscopy of differentiated ***astrocyte*** cells decorated with antibody against GFAP. (Scale bar 25 microns).

FIG. 21 shows indirect immunofluorescence microscopy of brain sections of two mice (A and B) 4 weeks after transplantation of human neural precursors prelabeled with BrDU. Cells with a nucleus decorated with anti BrDU (brown stain, black arrow) are evident near the ventricular surface (white arrow indicate mouse unstained nuclei, bar=20 microns).

FIG. 22 shows indirect immunofluorescence microscopy of brain sections of a mice 4 weeks after transplantation of human neural precursors prelabeled with BrDU. Wide spread distribution of transplanted human cells decorated by anti BrDU antibodies is evident in the periventricular areas. The periventricular area in A is demonstrated at a higher magnification in B and C. (Bars=150, 60 and 30 microns in A, B and C).

FIG. 23 shows indirect immunocytochemical microscopy of brain sections of a mice 4 weeks after transplantation of human neural precursors prelabeled with BrDU. The transplanted human cells are migrating along the rostral migratory stream (bar=150 microns).

FIG. 24 shows RT-PCR analysis of gene expression in neural spheres derived from differentiating (A) and undifferentiated (B) ES cells. All panels show 2% agarose gels stained with ethidium bromide. Lanes 1 and 10, 100 bpDNA ladder; Lane 2, CD34; Lane 3, Flk-1; lane 4, HNF-3; lane 5, alfafetoprotein. Lanes 6-9 PCR reaction on the same samples as lanes 2-5 carried out with the omission of reverse transcriptase. CD-34 band is 200 bp, Flk-1 is 199, HNF-3 is 390, AFP is 340 bp.

FIG. 25 shows by RT-PCR analysis the expression of GFAP and the plp gene in differentiated cells from neural spheres derived from differentiating ES cell colonies. The expression of GFAP indicates differentiation into ***astrocytes*** while the presence of both dm-20 and plp transcripts indicate that differentiation into oligodendrocyte cells has occurred. Lanes 2,4,6 and lanes 3,5,7 are from two separate RNA samples from differentiated spheres that were independently derived from ES cells. Lane 1 and 8, 100 bp DNA ladder; Lanes 2 and 4, GFAP; lanes 3 and 5, plp and dm-20; lanes 6 and 7, PCR reaction on the same samples as lanes 3 and 5 carried out with the omission of reverse transcriptase. GFAP band is 383, plp band is 354 bp and dm-20 is 249 bp.

FIG. 26 shows a dark field stereomicroscopic photograph of areas (arrows) destined to give rise to neural precursors in a differentiating ES cell colony 3 weeks after passage (bar=1.6 mm).

FIG. 27 shows indirect immunochemical analysis of marker expression in cultures of neurons derived from progenitor cells that were derived directly from undifferentiated ES cells: A, indirect immunofluorescence microscopy of neurits decorated with antibody against 160 kDa neruofilament protein. B and C, indirect immunofluorescence staining of differentiated cells for MAP2a+b and beta-tubulin III. Scale bars: A 100

microns, B and C 10 microns.
FIG. 28 shows indirect immunochemical analysis of the expression of tyrosine hydroxylase. Neurits (A) and a differentiated cell (B) are decorated with antibodies against tyrosine hydroxylase. Scale bars: 30 microns.
FIG. 29 shows in vivo differentiation into ***astrocyte*** cells of transplanted human neural progenitors prelabeled with BrDU. Donor cells are identified by indirect immunochemical detection of BrDU (dark nuclei, arrows). Duel staining demonstrates donor cells decorated by anti GFAP (orange). Transplanted cells are migrating into the brain parenchyma (white arrow) and are also found in the periventricular zone (dark arrow) (A), A higher magnification of cells that have differentiated into ***astrocytes*** and migrated into the host brain (B).
FIG. 30 shows in vivo differentiation into oligodendrocyte cells of transplanted human neural progenitors prelabeled with BrDU. Donor cells are identified by indirect immunochemical detection of BrDU (dark nuclei, arrows). Duel staining demonstrates donor cells decorated by anti CNPase (orange). !

L4 ANSWER 30 OF 55 USPATFULL on STN
AN 2002:294269 USPATFULL
TI Stem cells of the islets of langerhans and their use in treating diabetes mellitus
IN Habener, Joel F., Newton Centre, MA, UNITED STATES
Zulewski, Henryk, Basel, SWITZERLAND
Thomas, Melissa K., Boston, MA, UNITED STATES
Abraham, Elizabeth J., Quincy, MA, UNITED STATES
Vallejo, Mario, Madrid, SPAIN
Leech, Colin A., Boston, MA, UNITED STATES
PI US 2002164307 A1 20021107
AI US 2001-963875 A1 20010926 (9)
RLI Continuation-in-part of Ser. No. US 2000-731261, filed on 6 Dec 2000, PENDING
PRAI US 1999-169082P 19991206 (60)
US 2000-215109P 20000628 (60)
US 2000-238880P 20001006 (60)
DT Utility
FS APPLICATION
LN.CNT 2587
INCL INCLM: 424/093.700
INCLS: 424/093.210
NCL NCLM: 424/093.700
NCLS: 424/093.210
IC [7]
ICM: A61K048-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 31 OF 55 USPATFULL on STN
AN 2002:340143 USPATFULL
TI Multilayer skin or dermal equivalent having a layer containing mesenchymal stem cells
IN Sorrell, J. Michael, Cleveland Heights, OH, United States
Caplan, Arnold I., Cleveland Heights, OH, United States
PA Case Western Reserve University, Cleveland, OH, United States (U.S. corporation)
PI US 6497875 B1 20021224
WO 9741208 19971106
AI US 1998-171445 19981026 (9)
WO 1997-US6760 19970424
19981026 PCT 371 date
PRAI US 1996-16317P 19960426 (60)
DT Utility
FS GRANTED
LN.CNT 1946
INCL INCLM: 424/093.700
INCLS: 435/001.100; 435/174.000; 435/177.000; 435/325.000; 435/366.000; 435/395.000
NCL NCLM: 424/093.700
NCLS: 435/001.100; 435/174.000; 435/177.000; 435/325.000; 435/366.000; 435/395.000
IC [7]
ICM: C12N005-06
ICS: C12N005-08; C12N011-00; C12N011-02
EXF 424/93.7; 435/174; 435/325; 435/395; 435/366; 435/177; 435/1.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

4 ANSWER 32 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
N 2002:524391 BIOSIS
N PREV200200524391
I Large-scale sources of neural stem cells.
U Gottlieb, David I. [Reprint author]
S Department of Anatomy and Neurobiology, Washington University School of Medicine, Saint Louis, MO, USA
gottlied@pcg.wustl.edu
O Cowan, W. Maxwell [Editor]; Hyman, Steven E. [Editor]; Jessell, Thomas M. [Editor]; Stevens, Charles F. [Editor]. Annu. Rev. Neurosci., (2002) pp. 381-407. Annual Review of Neuroscience. print.
Publisher: Annual Reviews, 4139 El Camino Way, Palo Alto, CA, 94303-0139, USA. Series: Annual Review of Neuroscience.
CODEN: ARNSD5. ISSN: 0147-006X. ISBN: 0-8243-2425-0 (cloth).
T Book
Book; (Book Chapter)
A English
D Entered STN: 9 Oct 2002
Last Updated on STN: 9 Oct 2002

4 ANSWER 33 OF 55 LIFESCI COPYRIGHT 2004 CSA on STN
AN 2003:32704 LIFESCI
TI Radial Glial Cells as Neuronal Precursors: The Next Generation?
AU Gregg, C.T.; Chojnacki, A.K.; Weiss, S.*
CS HSC 2164-3330 Hospital Dr. NW, Calgary, AB, T2N 4N1, Canada; E-mail: weiss@ucalgary.ca
O Journal of Neuroscience Research [J. Neurosci. Res.], (20020915) vol. 69, no. 6, pp. 708-713. Special issue: Stem cells..
ISSN: 0360-4012.
T Journal
TC General Review
TS N3
A English
L English

4 ANSWER 34 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 9
AN 2002:448773 BIOSIS
ON PREV200200448773
TI Neural stem cells.
AU Kennea, Nigel L.; Mehmet, Huseyin [Reprint author]
CS Weston Laboratory, Institute of Reproductive and Developmental Biology, Division of Paediatrics, Obstetrics and Gynaecology, Imperial College of Science, Technology and Medicine, Du Cane Road, Hammersmith Hospital Campus, London, W12 ONN, UK
h.mehmet@ic.ac.uk
O Journal of Pathology, (July, 2002) Vol. 197, No. 4, pp. 536-550. print.
CODEN: JPTLAS. ISSN: 0022-3417.
T Article
General Review; (Literature Review)
A English
D Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002

4 ANSWER 35 OF 55 CANCERLIT on STN DUPLICATE 10
N 2002143188 CANCERLIT
N 21917077 PubMed ID: 11921204
I Isolation of a glial-restricted tripotential cell line from embryonic spinal cord cultures.
U Wu Yuan Yuan; Mujtaba Tahmina; Han Steve S W; Fischer Itzhak; Rao Mahendra S
S Department of Neurobiology and Anatomy, University of Utah School of Medicine, Salt Lake City, Utah, USA.
O GLIA, (2002 Apr 1) 38 (1) 65-79.
Journal code: 8806785. ISSN: 0894-1491.
Y United States
T Journal; Article; (JOURNAL ARTICLE)
A English
S MEDLINE; Priority Journals
S MEDLINE 2002187447
M 200205
D Entered STN: 20020726
Last Updated on STN: 20020726

4 ANSWER 36 OF 55 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V. on STN

N 2002070328 ESBIOBASE
I Alternative sources of neurons and glia from somatic stem cells
U Torrente Y.; Belicchi M.; Pisati F.; Pagano S.F.; Fortunato F.; Sironi M.; Grazia D'Angelo M.; Parati E.A.; Scarlato G.; Bresolin N.
S Prof. N. Bresolin, Institute of Clinical Neurology, University of Milan, Ospedale Policlinico, via Francesco Sforza 35, 20122 Milan, Italy. E-mail: radponti@unimi.it
O Cell Transplantation, (2002), 11/1 (25-34), 35 reference(s)
   CODEN: CTRAE8 ISSN: 0963-6897
T Journal; Article
Y United States
A English
L English

4 ANSWER 37 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
N 2003:367607 BIOSIS
N PREV200300367607
I ***Transdifferentiation*** of Human Haemopoietic Lineage Negative Bone Marrow Cells to Neural Cells by Cytokines and Chemical Inducing Agents.
U Tao, Helen [Reprint Author]; Rao, Renuka S. [Reprint Author]; Ma, David D. F. [Reprint Author]
S Department of Haematology and Haematopoietic Stem Cell Transplantation, St Vincent's Hospital, Sydney, NSW, Australia
O Blood, (November 16 2002) Vol. 100, No. 11, pp. Abstract No. 4123. print.
   Meeting Info.: 44th Annual Meeting of the American Society of Hematology. Philadelphia, PA, USA. December 06-10, 2002. American Society of Hematology.
   CODEN: BLOOAW. ISSN: 0006-4971.
T Conference; (Meeting)
   Conference; Abstract; (Meeting Abstract)
   Conference; (Meeting Poster)
A English
D Entered STN: 13 Aug 2003
   Last Updated on STN: 13 Aug 2003

4 ANSWER 38 OF 55 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
   DUPLICATE 11
N 2002-06780 BIOTECHDS
I In vitro ***transdifferentiation*** of mammalian cells from glial cell type to neurons, oligodendrocytes and ***astrocytes*** , comprises culturing the cells to form group of cells and exposing the cells to a growth factor;
   human fetal and adult mammal ***astrocyte*** and stem cell transactivation in a culture vessel for the production of multipotent cell for xenotransplantation, Alzheimer disease, Parkinson disease, stroke recovery, brain, spinalcord damage therapy
U SALIN-NORDSTROM T H
A SPINAL CORD SOC
I WO 2001095861 20 Dec 2001
I WO 2000-US40971 16 Jun 2000
RAI US 2000-644498 23 Aug 2000
T Patent
A English
S WPI: 2002-139690 [18]

4 ANSWER 39 OF 55 USPATFULL on STN
N 2001:218003 USPATFULL
I Stem cells of the islets of langerhans and their use in treating diabetes mellitus
N Habener, Joel E., Newton Center, MA, United States
   Zulewski, Henryk, Geneva, Switzerland
   Abraham, Elizabeth J., Quincy, MA, United States
   Thomas, Melissa K., Boston, MA, United States
   Vallejo, Mario, Madrid, Spain
I US 2001046489 A1 20011129
I US 2000-731261 A1 20001206 (9)
RAI US 1999-169082P 19991206 (60)
   US 2000-215109P 20000628 (60)
   US 2000-238880P 20001006 (60)
T Utility
S APPLICATION
N.CNT 2114
NCL INCLM: 424/093.210
   INCLS: 514/009.000; 424/152.100; 435/366.000
CL NCLM: 424/093.210
   NCLS: 514/009.000; 424/152.100; 435/366.000

C [7]
ICM: A61K048-00
ICS: C12N005-08; A61K039-395
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4 ANSWER 40 OF 55 USPATFULL on STN
N 2001:165614 USPATFULL
I Stem cells and their use in transplantation
N Moss, Peter Ian, London, Great Britain
Walters, David Martin, London, Great Britain
Pointer, Graham, London, Great Britain
I US 2001024824 A1 20010927
I US 2000-731255 A1 20001206 (9)
RAI US 1999-169082P 19991206 (60)
US 2000-215109P 20000628 (60)
US 2000-238880P 20001006 (60)
T Utility
S APPLICATION
N.CNT 2446
NCL INCLM: 435/366.000
INCLS: 424/093.700
CL NCLM: 435/366.000
NCLS: 424/093.700
C [7]
ICM: C12N005-08
ICS: A61K045-00
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4 ANSWER 41 OF 55 USPATFULL on STN
N 2001:220886 USPATFULL
I Pancreatic progenitor cells, methods and uses related thereto
N Fung, Brenda, Belmont, MA, United States
Pang, Kevin, Belmont, MA, United States
Kagan, David, Brighton, MA, United States
A Curis, Inc., Cambridge, MA, United States (U.S. corporation)
I US 6326201 B1 20011204
I US 2000-499362 20000210 (9)
RAI US 1999-119576P 19990210 (60)
US 1999-142305P 19990702 (60)
US 1999-171338P 19991221 (60)
T Utility
S GRANTED
N.CNT 2646
NCL INCLM: 435/377.000
INCLS: 435/325.000; 435/371.000; 435/378.000
CL NCLM: 435/377.000
NCLS: 435/325.000; 435/371.000; 435/378.000
C [7]
ICM: C12N005-02
ICS: C12N005-00; C12N005-08
XF 435/325; 435/366; 435/375; 435/378; 435/379; 435/381; 435/377; 435/371
AS INDEXING IS AVAILABLE FOR THIS PATENT.

4 ANSWER 42 OF 55 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
N 2001-582442 [65] WPIDS
NC C2001-172762
I Preparing undifferentiated human embryonic stem cells for differentiation into neural progenitor cells, involves culturing inner cell mass removed in vitro fertilized human embryo under specific conditions.
C B04 D16
N HUR-BEN, T; PERA, M F; REUBINOFF, B E; BEN-HUR, T
A (HADA-N) HADASIT MEDICAL RES SERVICES & DEV; (REUB-I) REUBINOFF B E; (MONU) UNIV MONASH; (UYSI-N) UNIV SINGAPORE NAT; (ESCE-N) ES CELL INT PTE LTD; (BENH-I) BEN-HUR T; (PERA-I) PERA M F; (REUB-N) REUBINOFF
YC 95
I WO 2001068815 A1 20010920 (200165)* EN 125 C12N005-08
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001040361 A 20010924 (200208) C12N005-08
US 2002068045 A1 20020606 (200241) A61K045-00
US 2002164308 A1 20021107 (200275) C12N005-08
EP 1263932 A1 20021211 (200301) EN C12N005-08

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
EP 1302536 A2 20030416 (200328)# EN C12N005-08
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
CA 2406610 A1 20030404 (200336)# EN C12N005-08
JP 2004500103 W 20040108 (200410) 181 C12N005-06
ADT WO 2001068815 A1 WO 2001-AU278 20010314; AU 2001040361 A AU 2001-40361 20010314; US 2002068045 A1 US 2001-808382 20010314; US 2002164308 A1 CIP of US 2001-808382 20010314, US 2001-970543 20011004; EP 1263932 A1 EP 2001-911277 20010314, WO 2001-AU278 20010314; EP 1302536 A2 EP 2002-256974 20021004; CA 2406610 A1 CA 2002-2406610 20021003; JP 2004500103 W JP 2001-567299 20010314, WO 2001-AU278 20010314
FDT AU 2001040361 A Based on WO 2001068815; EP 1263932 A1 Based on WO 2001068815; JP 2004500103 W Based on WO 2001068815
PRAI AU 2001-2920 20010206; AU 2000-6211 20000314;
AU 2000-1279 20001106; EP 2002-256974 20021004;
CA 2002-2406610 20021003
IC ICM A61K045-00; C12N005-06; C12N005-08
ICS A61K035-28; A61K035-30; A61K048-00; A61P009-00; A61P017-02; A61P025-00; A61P025-28; A61P037-00; A61P043-00; C12N005-10

L4 ANSWER 43 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2001:864772 SCISEARCH
GA The Genuine Article (R) Number: 484WF
TI Neural stem cells
AU Price J (Reprint); Williams B P
CS Univ London Kings Coll, Inst Psychiat, DeCrespigny Pk, Denmark Hill, London SE5 8AF, England (Reprint); Univ London Kings Coll, Inst Psychiat, London SE5 8AF, England
CYA England
SO CURRENT OPINION IN NEUROBIOLOGY, (OCT 2001) Vol. 11, No. 5, pp. 564-567. Publisher: CURRENT BIOLOGY LTD, 84 THEOBALDS RD, LONDON WC1X 8RR, ENGLAND. ISSN: 0959-4388.
DT General Review; Journal
LA English
REC Reference Count: 27
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 44 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:486851 BIOSIS
DN PREV200100486851
TI Neural trans-differentiation of plastic adherent and non-adherent bone marrow stem cells.
AU Oyelese, A. A. [Reprint author]; Palmer, T. D. [Reprint author]
CS Neurosurgery, Stanford University Medical Center, Stanford, CA, USA
SO Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. 346. print. Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001. ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 17 Oct 2001
Last Updated on STN: 23 Feb 2002

L4 ANSWER 45 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2001:421880 SCISEARCH
GA The Genuine Article (R) Number: 433UR
TI The neural stem cells and their ***transdifferentiation*** capacity
AU Vescovi A L (Reprint); Galli R; Gritti A
CS Hosp San Raffaele, DIBIT, Stem Cell Res Inst, I-20132 Milan, Italy (Reprint)
CYA Italy
SO BIOMEDICINE & PHARMACOTHERAPY, (MAY 2001) Vol. 55, No. 4, pp. 201-205. Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE. ISSN: 0753-3322.
DT Article; Journal
LA English
REC Reference Count: 29
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 46 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 2002:253803 SCISEARCH
GA The Genuine Article (R) Number: 531EH

TI Alternative sources of neurons and glia from somatic stem cells
AU Torrente Y; Belicchi M; Pisati F; Pagano S F; Fortunato F; Sironi M; D'Angelo M G; Parati E A; Scarlato G; Bresolin N (Reprint)
CS Univ Milan, Inst Clin Neurol, Osped Policlin, Padigl Ponti, Via Francesco Sforza 35, I-20122 Milan, Italy (Reprint); IRCCS Osped Maggiore Policlin, Milan, Italy; Natl Neurol Inst C Besta, Neuropharmacol Lab, Milan, Italy; Ctr Dino Ferrari, Inst Clin Neurol, Milan, Italy; IRCCS Eugenio Medea, Bosisio Parini, Italy
CYA Italy
SO CELL TRANSPLANTATION, (JAN 2001) Vol. 11, No. 1, pp. 25-34.
Publisher: COGNIZANT COMMUNICATION CORP, 3 HARTSDALE ROAD, ELMSFORD, NY 10523-3701 USA.
ISSN: 0963-6897.
DT Article; Journal
LA English
REC Reference Count: 35
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 47 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:84645 CAPLUS
DN 136:83103
TI Differentiation control of neural stem cells
AU Kondo, Toru
CS Embryol. Med. Res. Cent., Kumamoto Univ., Japan
SO Ensho to Men'eki (2001), Volume Date 2002, 10(1), 19-24
CODEN: ENMEFA; ISSN: 0918-8371
PB Sentan Igakusha
DT Journal; General Review
LA Japanese

L4 ANSWER 48 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 12
AN 2000:464024 CAPLUS
DN 133:100438
TI ***Transdifferentiation*** of non-neuronal cells into neurons by transfection with cDNA encoding a neurogenic transcription factor responsible for neuronal differentiation
IN Levesque, Michel F.; Neuman, Toomas
PA Cedars-Sinai Medical Center, USA
SO U.S., 27 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6087168	A	20000711	US 1999-234332	19990120
	EP 1022331	A2	20000726	EP 2000-101100	20000120
	EP 1022331	A3	20020522		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1022330	A2	20000726	EP 2000-101101	20000120
	EP 1022330	A3	20020522		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2000295987	A2	20001024	JP 2000-48291	20000120
	JP 2000295997	A2	20001024	JP 2000-48293	20000120
PRAI	US 1999-234332	A	19990120		

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L4 ANSWER 49 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 13
AN 2000:445799 BIOSIS
DN PREV200000445799
TI Radial glia phenotype: Origin, regulation, and ***transdifferentiation*** .
AU Chanas-Sacre, Grazyna; Rogister, Bernard; Moonen, Gustave; Leprince, Pierre [Reprint author]
CS Institut Leon Fredericq, Universite de Liege, Place Delcour 17, B 4020, Liege, Belgium
SO Journal of Neuroscience Research, (August 15, 2000) Vol. 61, No. 4, pp. 357-363. print.
CODEN: JNREDK. ISSN: 0360-4012.
DT Article
General Review; (Literature Review)
LA English

ED Entered STN: 18 Oct 2000
Last Updated on STN: 10 Jan 2002

L4 ANSWER 50 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:97219 BIOSIS
DN PREV200100097219
TI ***Transdifferentiation*** of neural precursor cells after blastocyst implantation.
AU Pipia, G. G. [Reprint author]; Low, H. P.; Turner, T.; McAuliffe, C.; Salmonsen, R.; Quesenberry, P. J.; Schwartz, W. J.; Litofsky, N. S.; Ross, A.; Recht, L.; Jones, S.
CS UMASS Medical School, Worcester, MA, USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-415.13. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 21 Feb 2001
Last Updated on STN: 15 Feb 2002

L4 ANSWER 51 OF 55 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V. on STN DUPLICATE
AN 1997172785 ESBIOBASE
TI Basic fibroblast growth factor (FGF-2) induced ***transdifferentiation*** of retinal pigment epithelium: Generation of retinal neurons and glia
AU Sakaguchi D.S.; Janick L.M.; Reh T.A.
CS D.S. Sakaguchi, Department of Zoology and Genetics, 339 Science II, Iowa State University, Ames, IA 50011, United States.
E-mail: dssakagu@iastate.edu
SO Developmental Dynamics, (1997), 209/4 (387-398), 48 reference(s)
CODEN: DEDYEI ISSN: 1058-8388
DT Journal; Article
CY United States
LA English
SL English

L4 ANSWER 52 OF 55 Elsevier BIOBASE COPYRIGHT 2004 Elsevier Science B.V. on STN DUPLICATE
AN 1997028694 ESBIOBASE
TI Induction of various blood-brain barrier properties in non-neural endothelial cells by close apposition to co-cultured ***astrocytes***
AU Hayashi Y.; Nomuha M.; Yamagishi S.-I.; Harada S.-I.; Yamashita J.; Yamamoto H.
CS Dr. H. Yamamoto, Department of Biochemistry, Kanazawa Univ. School of Medicine, 13-1 Takara-machi, Kanazawa 920, Japan.
SO GLIA, (1997), 19/1 (13-26), 57 reference(s)
CODEN: GLIAEJ ISSN: 0894-1491
DT Journal; Article
CY United States
LA English
SL English

L4 ANSWER 53 OF 55 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 95:474436 SCISEARCH
GA The Genuine Article (R) Number: RG941
TI ADRENAL CHROMAFFIN CELLS TRANSDIFFERENTIATE IN RESPONSE TO BASIC FIBROBLAST GROWTH-FACTOR AND SHOW DIRECTED OUTGROWTH TO A NERVE GROWTH-FACTOR SOURCE IN-VIVO
AU CHALMERS G R (Reprint); FISHER L J; NIIJIMA K; PATTERSON P H; GAGE F H
CS SIMON FRASER UNIV, DEPT KINESIOL, BURNABY, BC V5A 1S6, CANADA (Reprint); UNIV CALIF SAN DIEGO, DEPT NEUROSCI, LA JOLLA, CA, 92093; CALTECH, DIV BIOL, PASADENA, CA, 91125
CYA CANADA; USA
SO EXPERIMENTAL NEUROLOGY, (MAY 1995) Vol. 133, No. 1, pp. 32-42.
ISSN: 0014-4886.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 43
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L4 ANSWER 54 OF 55 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 16
AN 1994:502823 BIOSIS
DN PREV199497515823
TI Nerve growth factor released by transgenic ***astrocytes*** enhances the function of adrenal chromaffin cell grafts in a rat model of Parkinson's disease.
AU Cunningham, Lee Anna [Reprint author]; Short, M. Priscilla; Breakefield, Xandra O.; Bohn, Martha C.
CS Dep. Pharmacol., Univ. New Mexico Sch. Med., BMSB 145, Albuquerque, NM 87131, USA
SO Brain Research, (1994) Vol. 658, No. 1-2, pp. 219-231.
CODEN: BRREAP. ISSN: 0006-8993.
DT Article
LA English
ED Entered STN: 28 Nov 1994
Last Updated on STN: 28 Nov 1994

L4 ANSWER 55 OF 55 CANCERLIT on STN DUPLICATE 17
AN 80656405 CANCERLIT
DN 80656405
TI ' ***TRANSDIFFERENTIATION*** ' OF C6 GLIAL CELLS IN CULTURE.
AU Parker K K; Norenberg M D; Vernadakis A
CS Dept. Pharmacology, Univ. Colorado, Sch. Medicine, Denver, CO, 80262.
SO Science, (1980) 208 (4440) 179-181.
ISSN: 0036-8075.
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Institute for Cell and Developmental Biology
EM 198006
ED Entered STN: 19941107
Last Updated on STN: 19970509
STN INTERNATIONAL LOGOFF AT 17:46:01 ON 02 AUG 2004